

Serial No.: 09/576,648

2

PD-200049

---

Amendments of Claims:

## 1. (Canceled)

2. (Currently Amended) ~~The system of claim 1, further comprising: A mobile wireless communication system for a variety of different mobile user types, comprising:~~

a plurality of individual transponding nodes;

a plurality of individual resource cells each associated with a particular one of said plurality of transponding nodes and one of a plurality of available CDMA codes;

a plurality of mobile terminals, each of which is assigned to operate in one or more of said plurality of individual resource cells;

wherein each of said plurality of individual resource cells is assigned to at most one of said plurality of mobile terminals at any one time; and

a central processing hub, which establishes links to one or more of said users through one or more of said plurality of transponding nodes wherein the specific transponding node and codes used to complete each of said links is determined by the resource cells assigned to the user;

wherein said central processing hub pre-processes transmission signals for forward link transmission such that [[they]] the transmission signals are radiated with compensating time delays to an intended one of said plurality of mobile users [[who]] that coherently receives all such said signals intended for him;

wherein said central processing hub post-processes received signals to introduce compensating time delays such that all such said received signals received from a particular remote user may be coherently processed together.

3. (Currently Amended) The system of claim [[1.]] 2, wherein each of said plurality of individual transponding nodes is independently selected from one of the

Serial No.: 09/576,648

3

PD-200049

following system types: a space-based system, a high altitude platform system, a tower based cellular network, or a manned/unmanned aircraft.

4. (Original) The system of claim 2, wherein at least one said plurality of mobile terminals is assigned resource cells in platform-code space for said return link that are different from said resource cells in platform-code space assigned for said forward link.

5. (Original) The system of claim 3, wherein said high altitude platform system is comprised of a plurality of manned/unmanned airships.

6. (Original) The system of claim 3, wherein said high altitude platform system is comprised of a plurality of high altitude balloons.

7. (Original) The system of claim 3, wherein said plurality of individual transponder nodes are all of the same type.

8. (Original) The system of claim 3, wherein said plurality of individual transponder nodes are not all of the same type.

9. (Currently Amended) A method for establishing a plurality of communication links to a plurality of different users, comprising:

providing a plurality of individual transponding nodes;

processing a plurality of local user signals at a ground hub to compensate for differential propagation delays to any one of a plurality of remote users;

assigning each of said plurality of remote users one or more resource cells in platform-code space;

Serial No.: 09/576,648

4

PD-200049

wherein said resource cells assigned to a user for use on the forward link may or not be the same as those assigned for use on the return link;

wherein each resource cell assigned to a particular user enables [[him]] the user to transmit signals to or from the hub through a particular transponder node using a particular CDMA code first resource cell and to coherently receive signals from more than one transponder node using a second resource cell.

10. (Original) The method of claim 9, wherein at least one of said plurality of transponder nodes is selected from a high altitude platform system.

A1

11. (Original) The method of claim 10, wherein said high altitude platform system includes a plurality of manned/unmanned airships.

12. (Original) The method of claim 10, wherein said high altitude platform system is comprised of a plurality of high altitude balloons.

13. (Original) The method of claim 9, wherein at least one of said plurality of transponder nodes is selected from a tower-based cellular network.

14. (Original) The method of claim 10, wherein at least one of said plurality of transponder nodes is selected from a space based system.

15. (Currently Amended) A mobile wireless communication system for a variety of different mobile user types users, comprising:

a plurality of individual transponder nodes, each having an established link with a ground hub;

a plurality of individual resource cells each associated with at least one of said plurality of transponder nodes and at least one of a plurality of codes; and

Serial No.: 09/576,648

5

PD-200049

a plurality of remote users having an established link with said ground hub, and each being assigned one or more of said plurality of individual resource cells in code-platform space wherein at least a first user of the plurality of remote users is assigned first resource cells from the plurality of individual resource cells corresponding to more than one transponder node so that the signals generated from the transponder nodes are coherently added together at the first user.

16. (Original) The system of claim 15, wherein each of said plurality of individual transponder nodes is selected from among the following platforms: a space-based system, a tower-based cellular network, a manned/unmanned aircraft or a high altitude platform system.

17. (Original) The system of claim 16, wherein said high altitude platform system is comprised of a plurality of manned/unmanned airships.

18. (Original) The system of claim 16, wherein said high altitude platform system is comprised of a plurality of high altitude balloons.

19. (Original) The system of claim 16, wherein said plurality of individual transponder nodes are selected from the same platform.

20. (Original) The system of claim 16, wherein said plurality of individual transponder nodes are selected from at least two of the platforms.

21. (Original) The system of claim 16, wherein said ground hub pre-processes signals for forward link transmission and post-processes signals for return link reception.

Serial No.: 09/576,648

6

PD-200049

22. (Original) The system of claim 21, wherein at least one of said plurality of mobile terminals is assigned resource cells in platform-code space for said return link that are different from those assigned for said forward link.

91